

A cross-sectional diagram of a semiconductor device, labeled 2 and 4. The device is divided into two main regions: an NPN region on the left and a PNP region on the right. The NPN region (2) features a base layer 12, an emitter layer 25, and a collector layer 21. The PNP region (4) features a base layer 10, an emitter layer 21, and a collector layer 23. A central region 16 is shown between the two main regions. Arrows 14 and 15 indicate current flow. Various other layers and structures are labeled with numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

FIG. 2

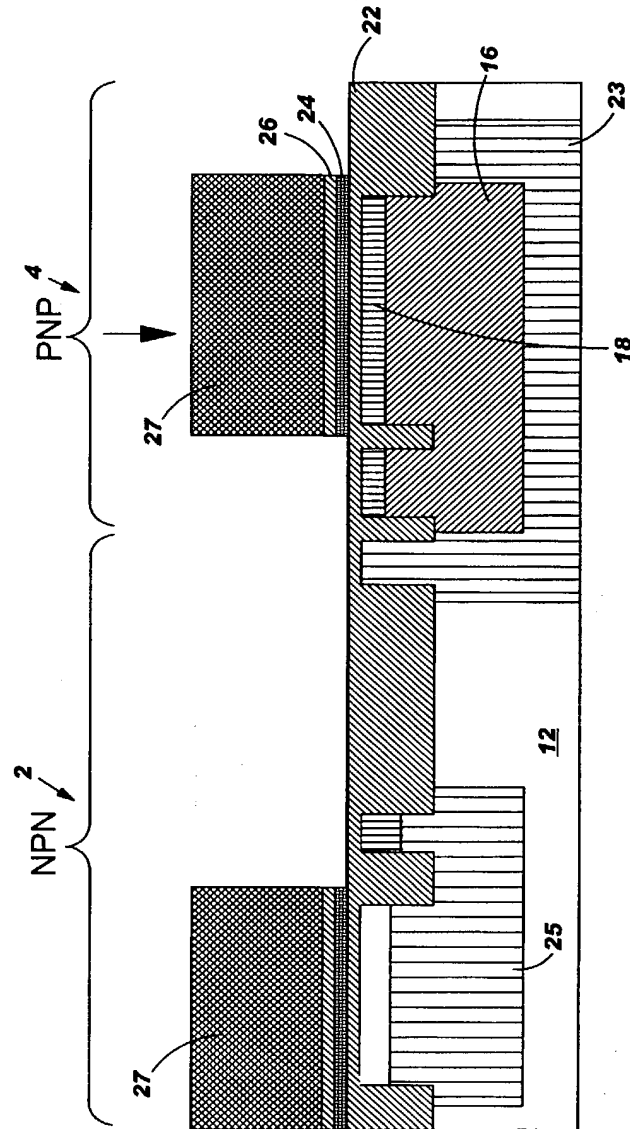
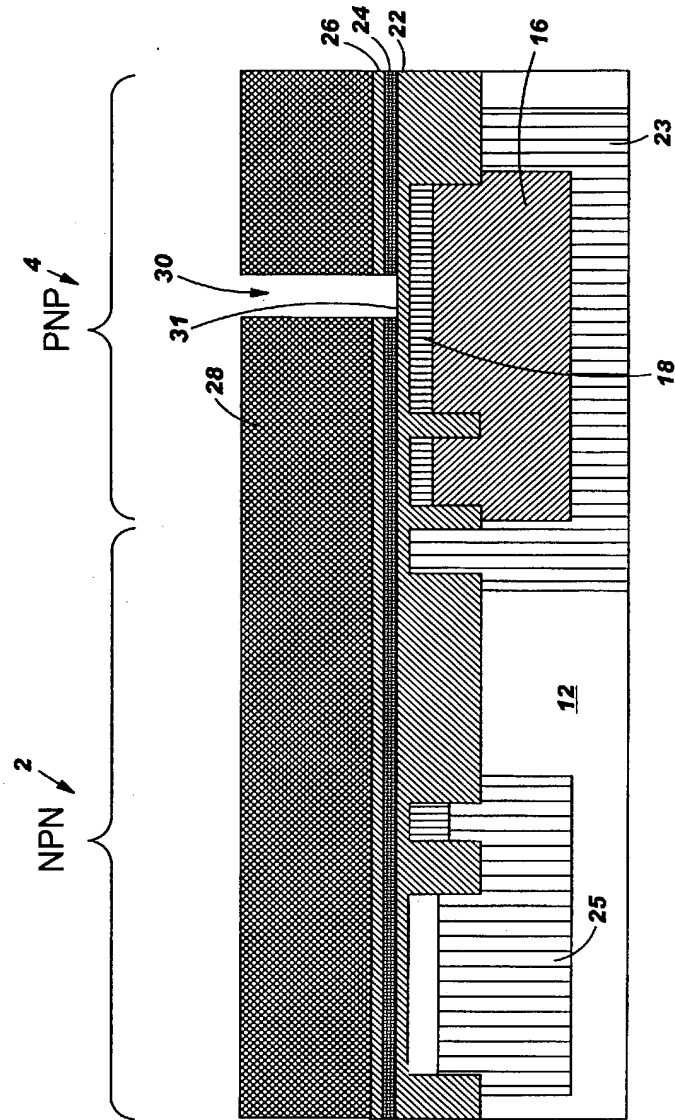
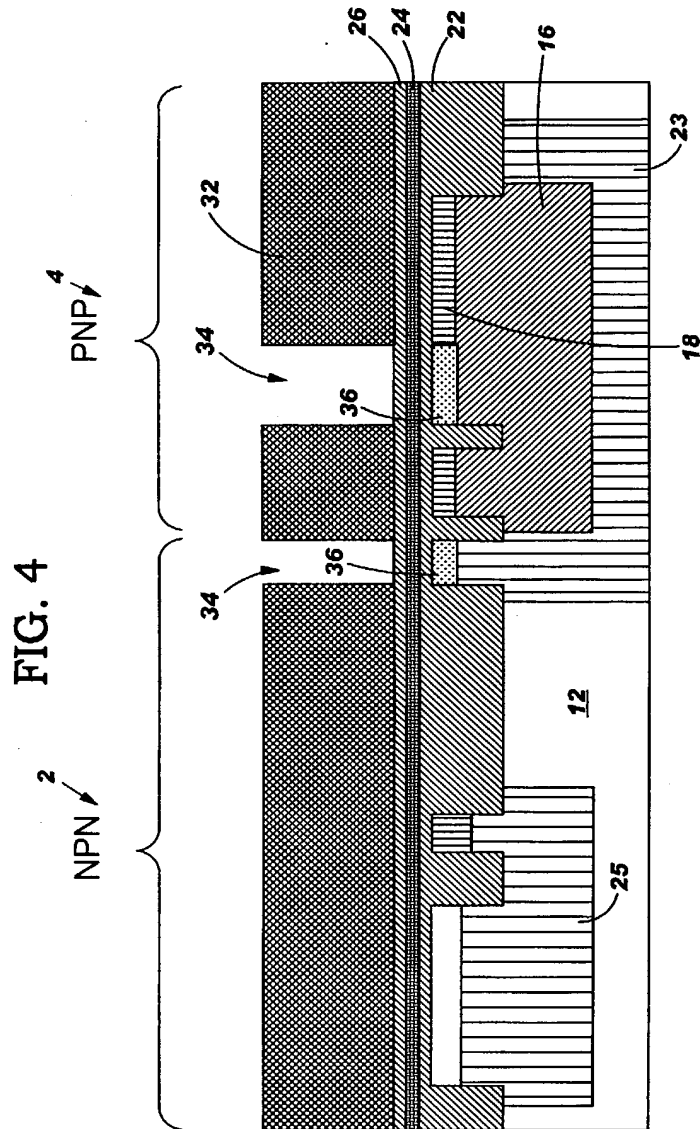
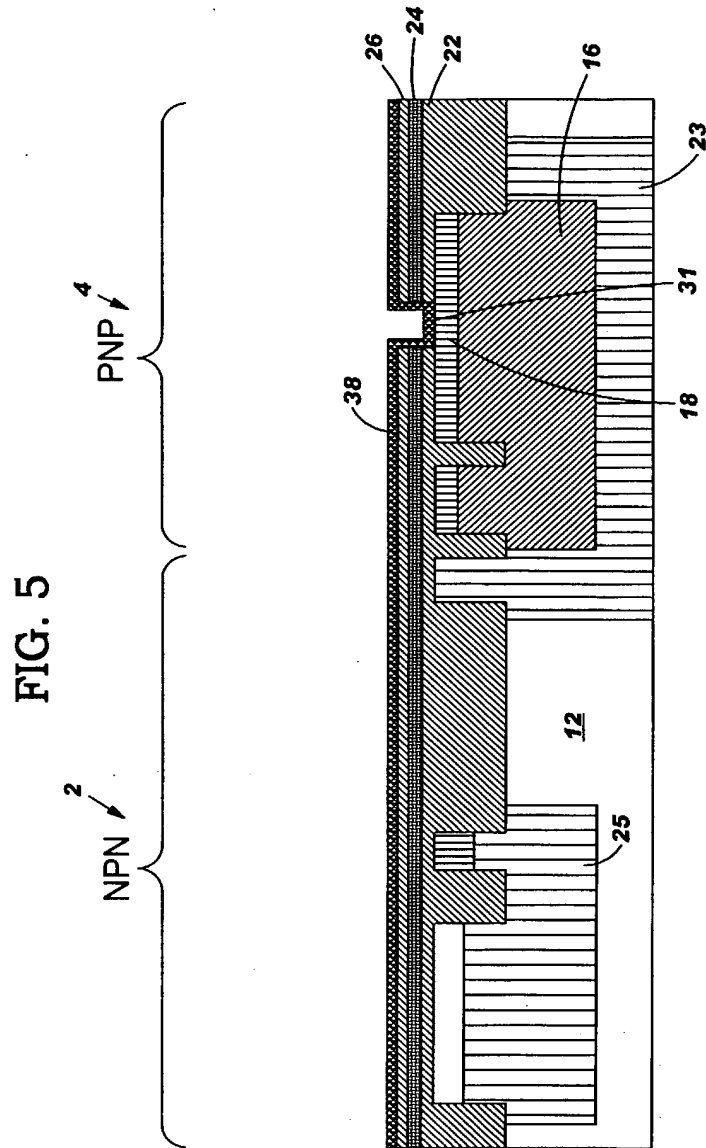


FIG. 3







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FIG. 6

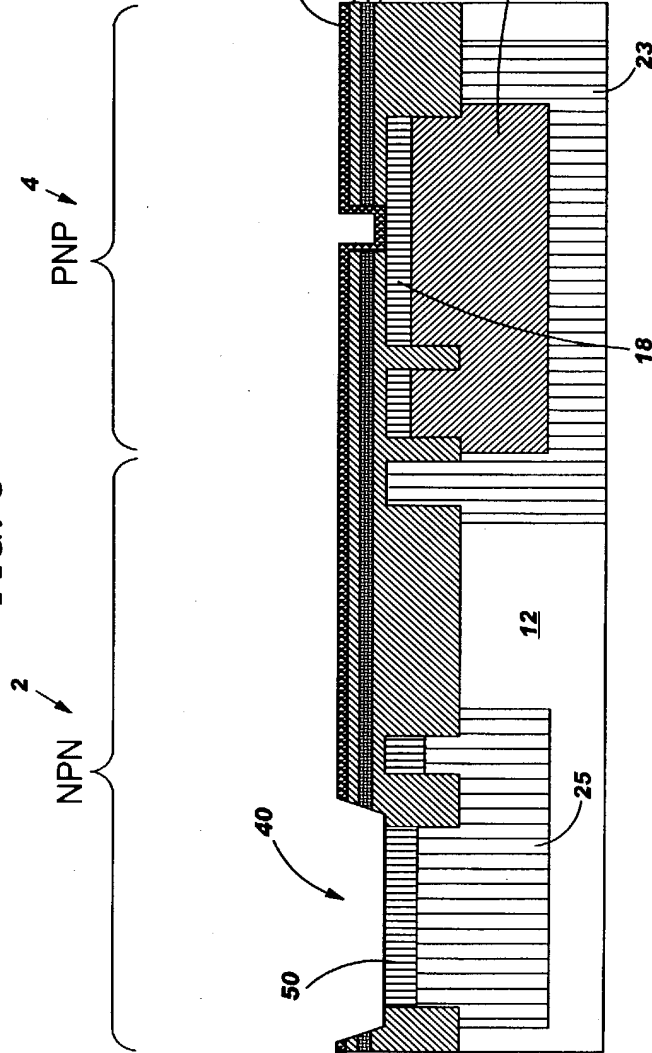


FIG. 7

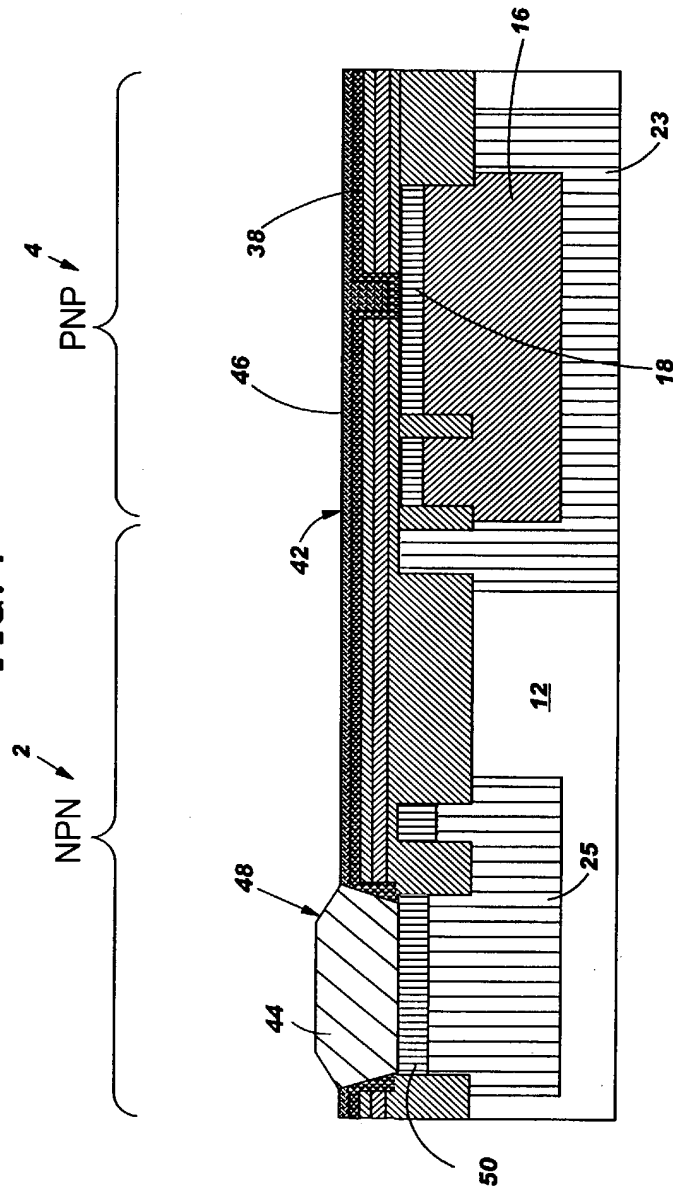
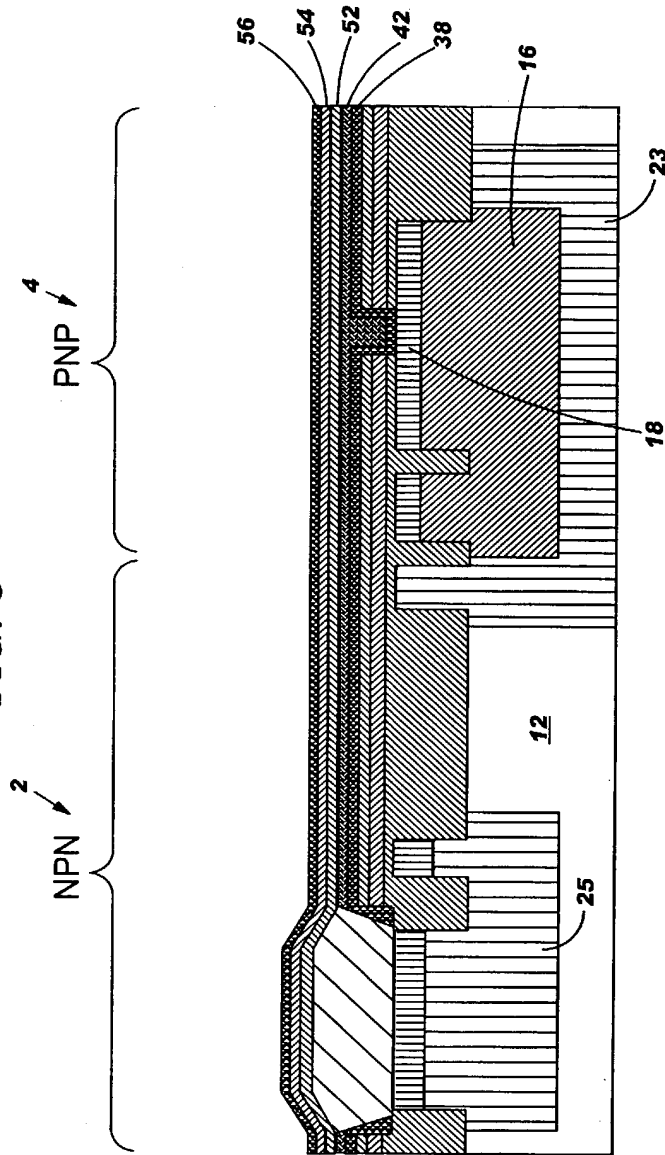
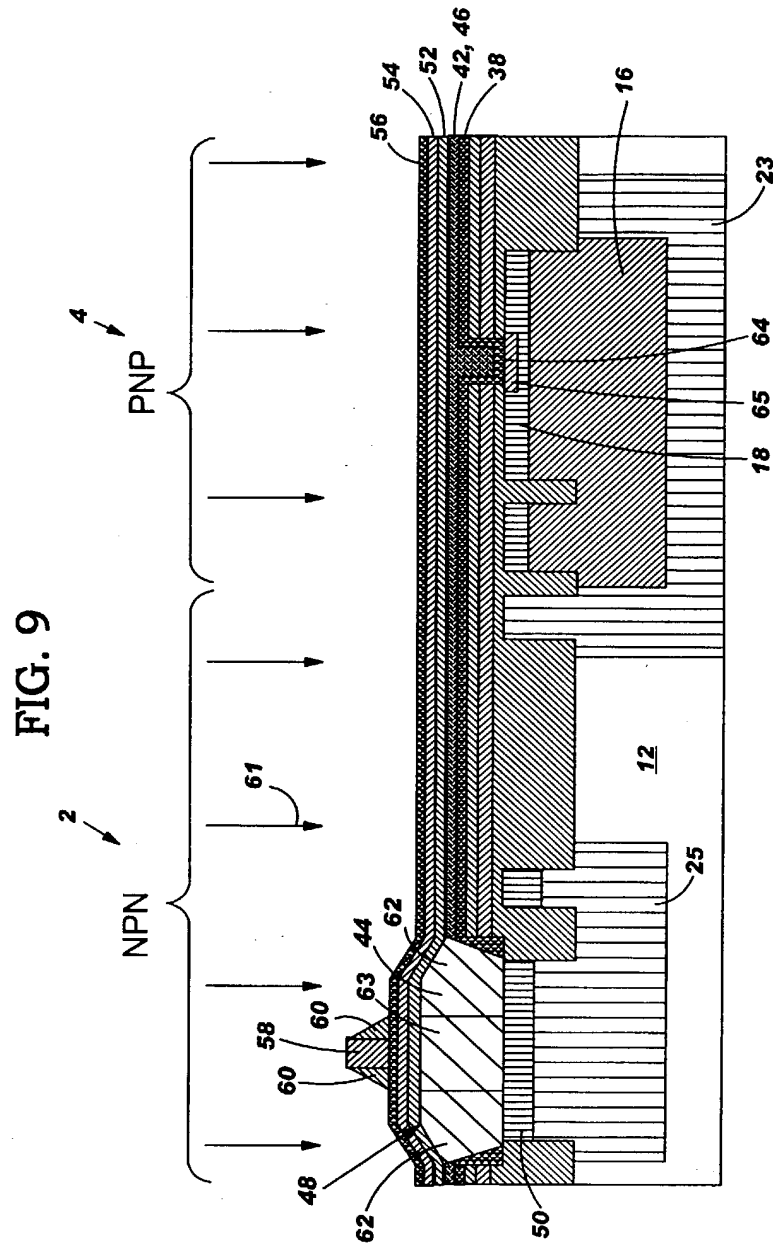


FIG. 8



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FIG. 10

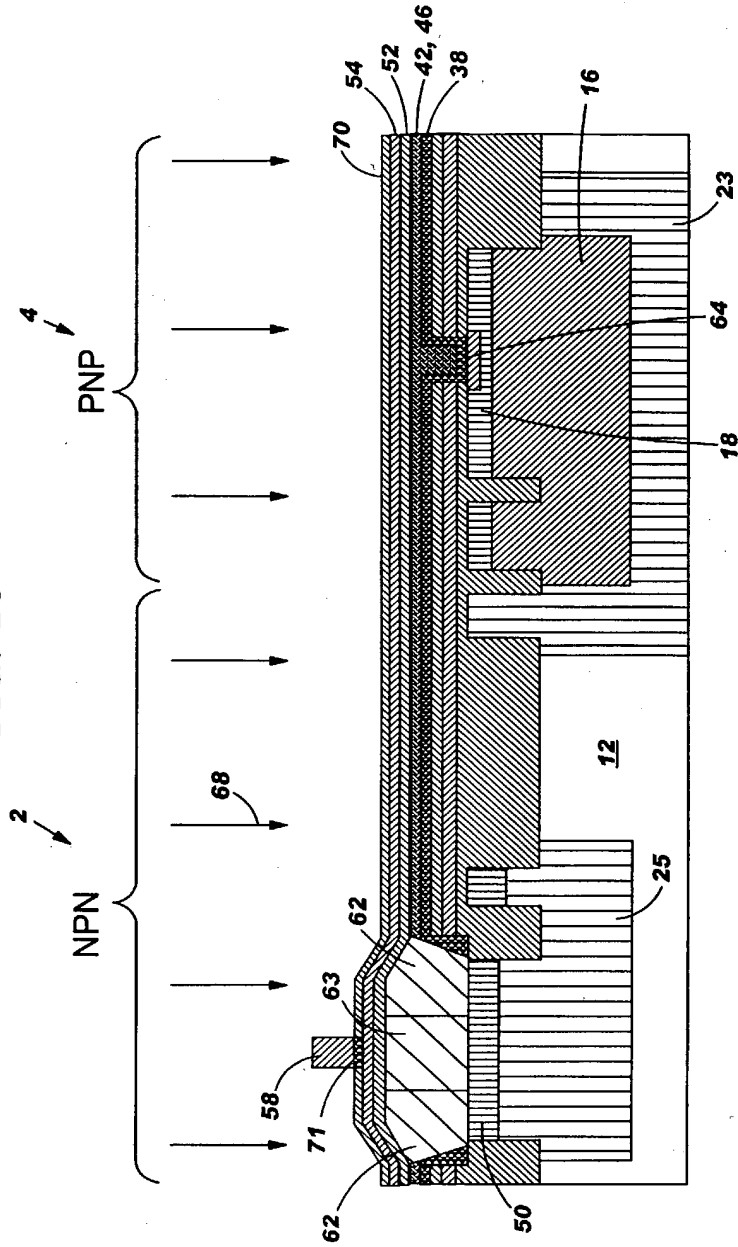
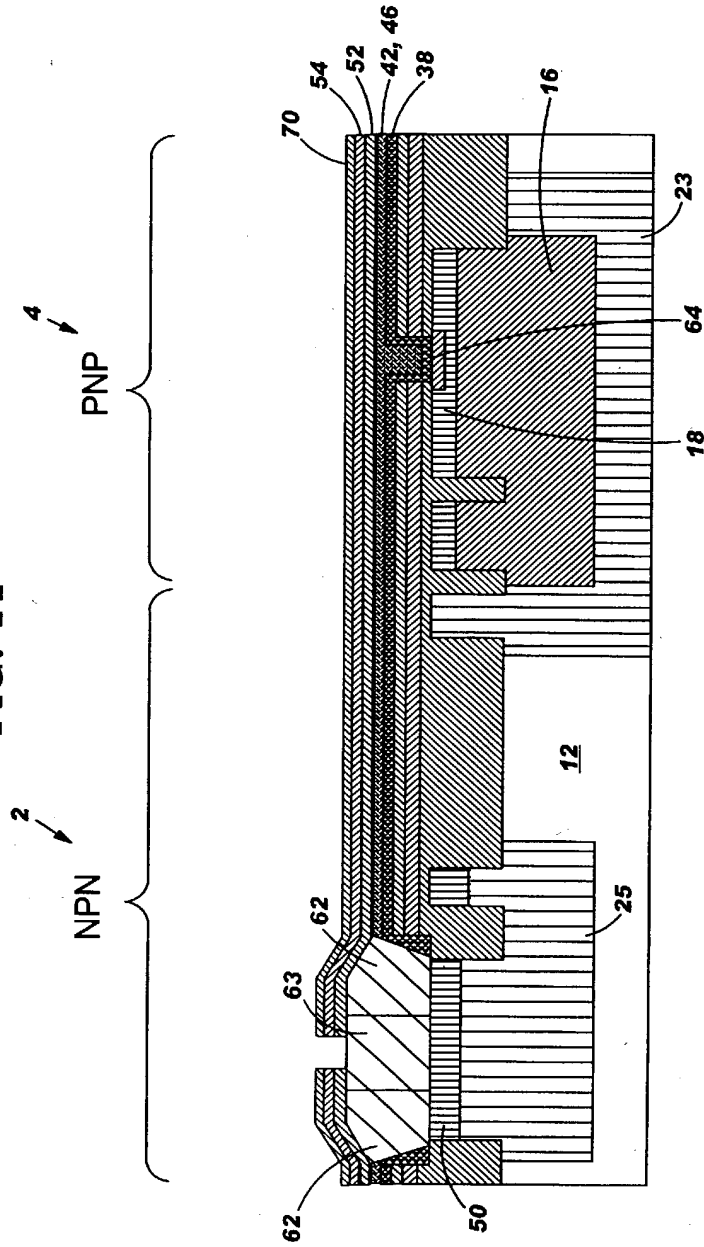
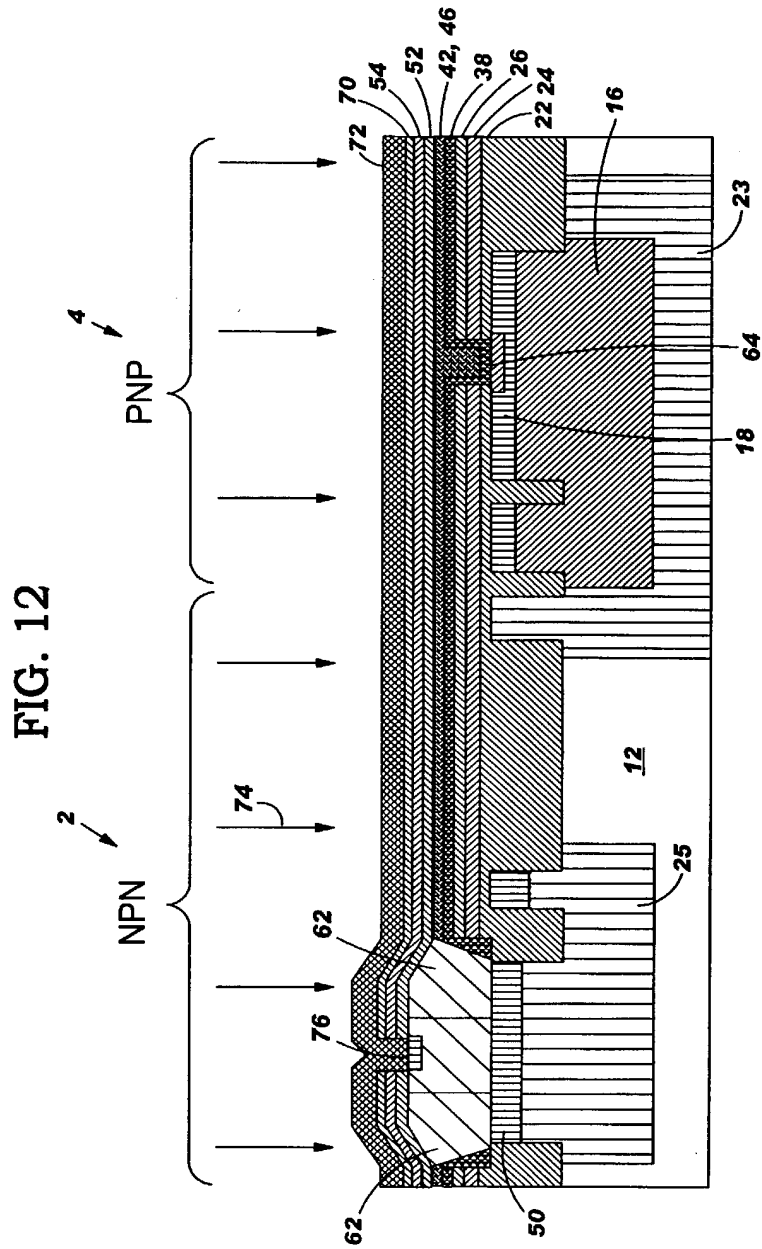


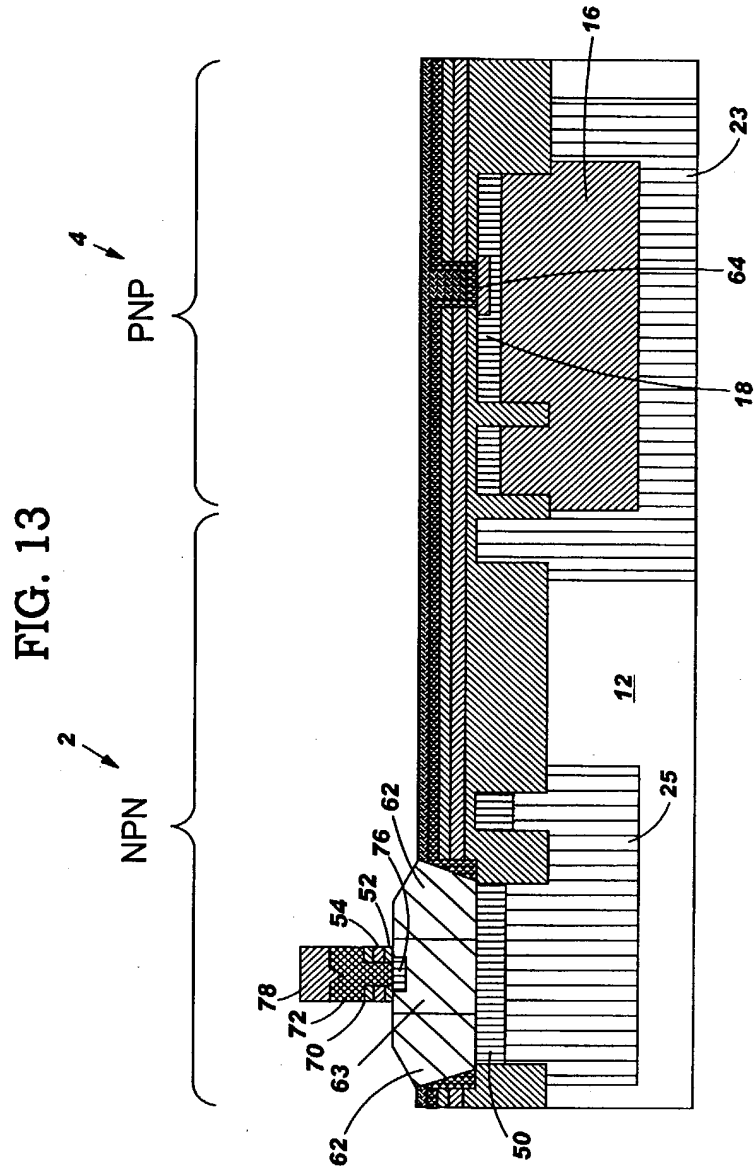
FIG. 11



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FIG. 14

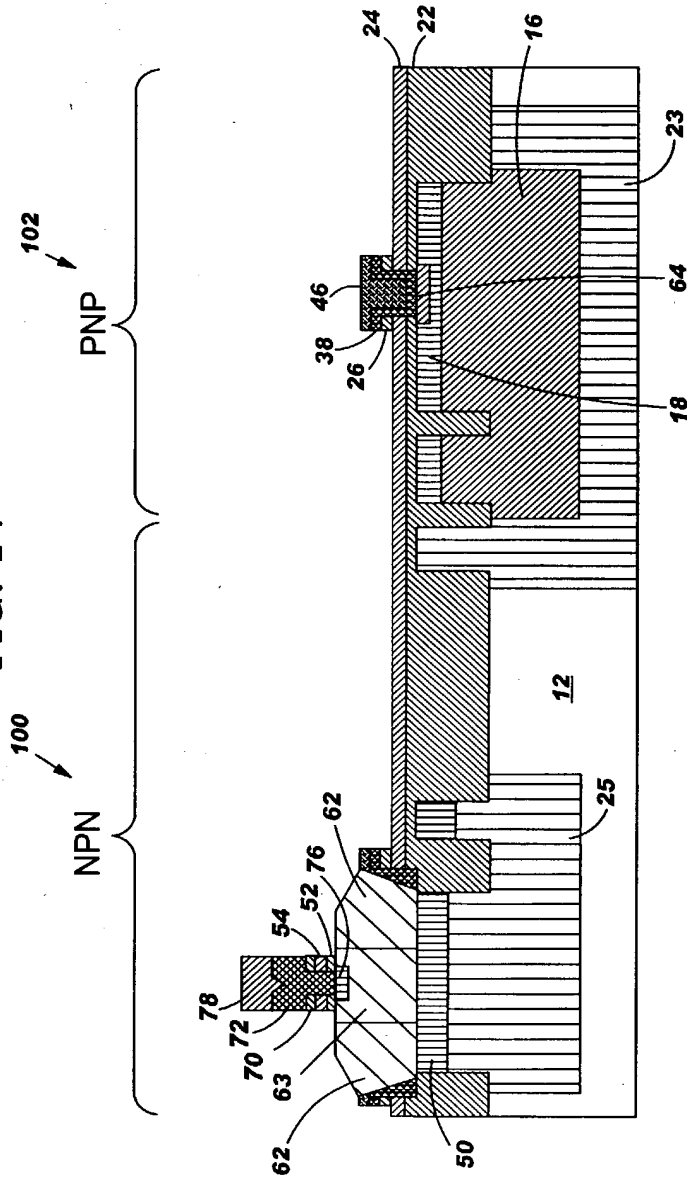
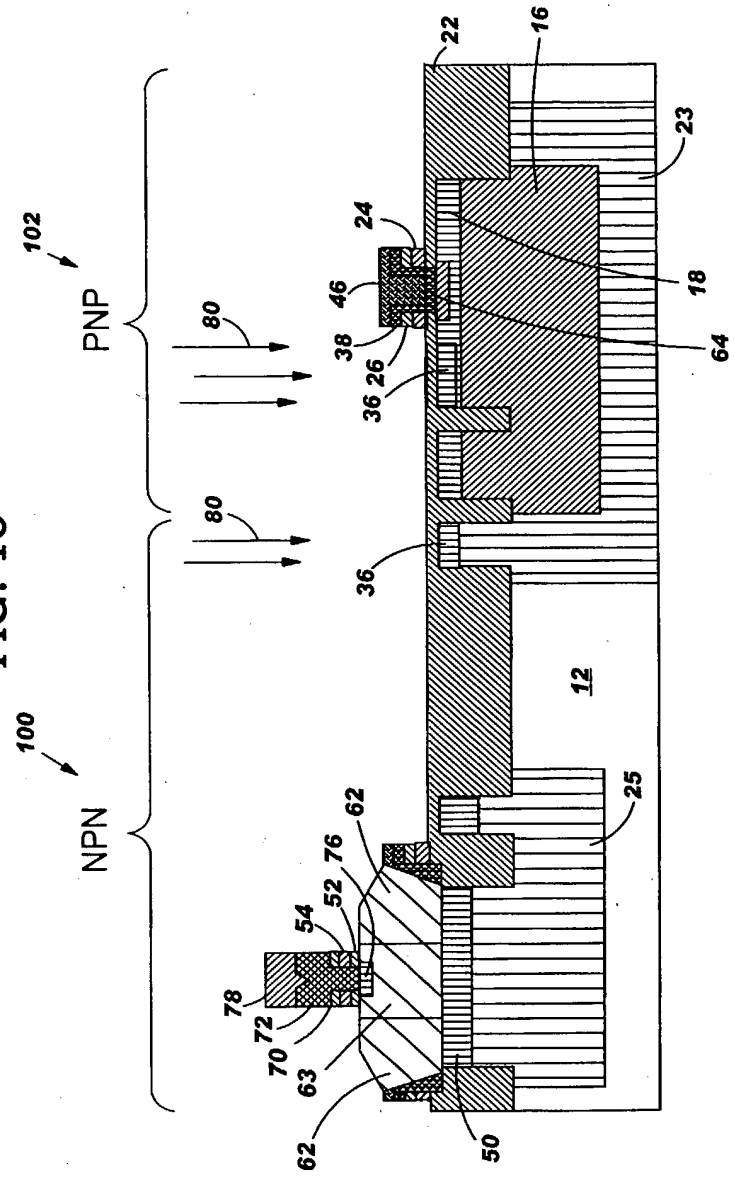


FIG. 15



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FIG. 16

